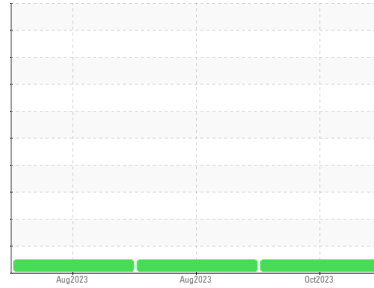




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
BD SHOP
 Machine Id
200287

Component
Diesel Engine
 Fluid

PETRO CANADA DURON SHP 10W30 (40 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0852040	WC0814938	WC0814939
Sample Date	Client Info			01 Oct 2023	11 Aug 2023	11 Aug 2023
Machine Age	kms	Client Info		139746	122533	122534
Oil Age	kms	Client Info		17233	60416	1
Oil Changed	Client Info			Not Chngd	Not Chngd	Changed
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method		>3.0	<1.0	<1.0	<1.0
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>200	16	39	6
Chromium	ppm	ASTM D5185(m)	>6	1	2	<1
Nickel	ppm	ASTM D5185(m)	>3	<1	<1	0
Titanium	ppm	ASTM D5185(m)	>2	0	<1	0
Silver	ppm	ASTM D5185(m)	>2	<1	<1	<1
Aluminum	ppm	ASTM D5185(m)	>50	7	16	2
Lead	ppm	ASTM D5185(m)	>10	2	2	0
Copper	ppm	ASTM D5185(m)	>50	74	93	12
Tin	ppm	ASTM D5185(m)	>6	<1	1	0
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

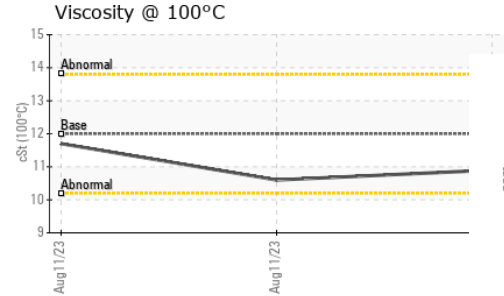
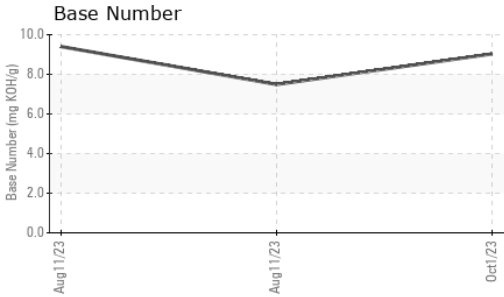
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	2	4	6	6
Barium	ppm	ASTM D5185(m)	0	<1	0	0
Molybdenum	ppm	ASTM D5185(m)	50	63	60	57
Manganese	ppm	ASTM D5185(m)	0	0	1	<1
Magnesium	ppm	ASTM D5185(m)	950	996	943	949
Calcium	ppm	ASTM D5185(m)	1050	1119	1191	1035
Phosphorus	ppm	ASTM D5185(m)	995	1027	961	1035
Zinc	ppm	ASTM D5185(m)	1180	1235	1144	1145
Sulfur	ppm	ASTM D5185(m)	2600	2401	1774	2496
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>50	4	5	4
Sodium	ppm	ASTM D5185(m)		2	3	2
Potassium	ppm	ASTM D5185(m)	>20	17	45	6

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0.3	0.7	0
Nitration	Abs/cm	ASTM D7624*	>20	6.6	9.3	5.0
Sulfation	Abs./1mm	ASTM D7415*	>30	19.7	22.5	18.9



OIL ANALYSIS REPORT

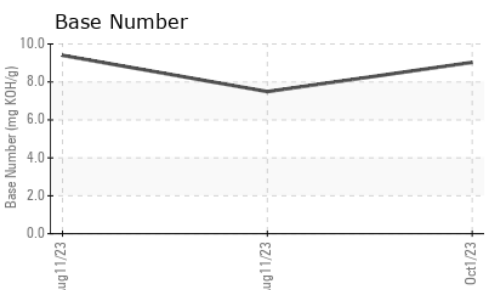
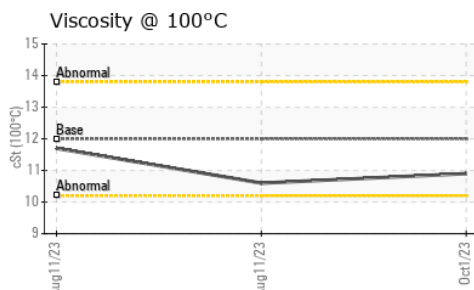
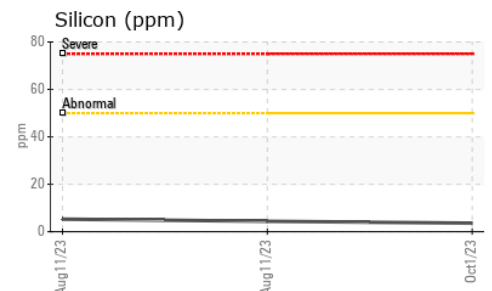
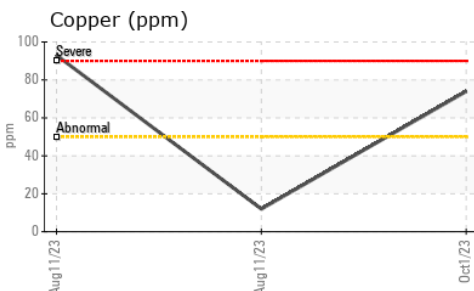
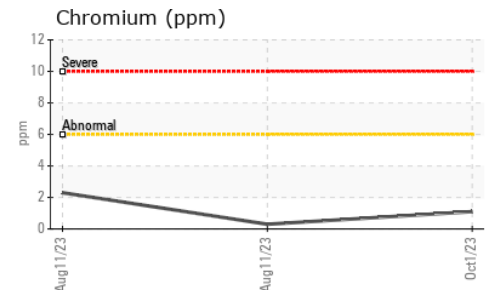
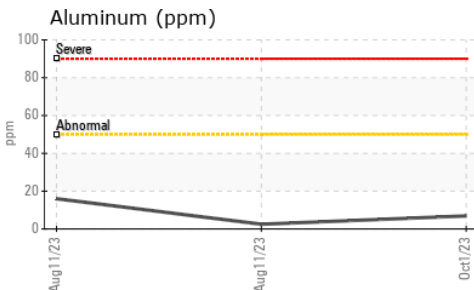
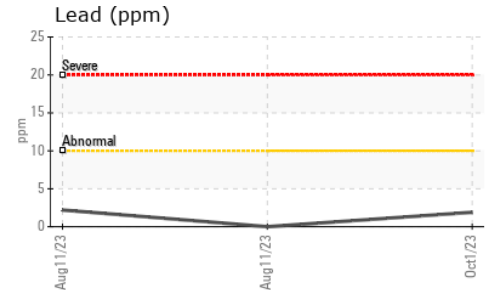
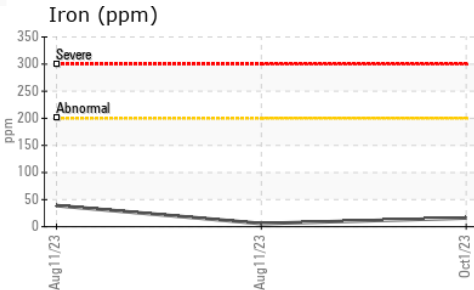


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	14.8	18.7	13.5
Base Number (BN)	mg KOH/g	ASTM D2896*		9.03	7.49	9.40

VISUAL	method	limit/base	current	history1	history2	
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	10.9	10.6	11.7

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0852040 **Received** : 02 Oct 2023
Lab Number : **02586054** **Diagnosed** : 02 Oct 2023
Unique Number : 5655120 **Diagnostician** : Kevin Marson
Test Package : MOB 2

WFR Technical Services
 5389 Riverside Drive
 Burlington, ON
 CA L7L 3Y1
 Contact: William Ridley
 wfr.technical.services@gmail.com

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.